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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/021,135	11/29/2001	Wilfred C. Kittler JR.	1330.65923/DTI 4021	7605
7590	12/05/2003			
Thomas R. Juettner Greer, Burns & Crain, Ltd. Suite 2500 300 South Wacker Drive Chicago, IL 60606				
EXAMINER PIZIALI, ANDREW T				
ART UNIT		PAPER NUMBER		
1775				

DATE MAILED: 12/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/021,135		KITTLER, WILFRED C.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Andrew T Piziali		1775	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 July 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 4,5 and 10-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 6-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All   b) ☐ Some \*   c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>11/29/01</u> . | 6) <input type="checkbox"/> Other:  |

## DETAILED ACTION

### *Election/Restrictions*

1. Applicant's election of Group I, claims 1-9, and Species 2 in both Groups A and B, is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 8-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 8, it is not clear how the article is "adapted." In view of the specification, the applicant appears to be claiming that the conductive layer surface is at least partially exposed to air. The claim has been examined as such, but further clarification is required.

### *Claim Rejections - 35 USC § 102*

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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5. Claims 1-3 and 6-8 are rejected under 35 U.S.C. 102(e) as being anticipated by USPN 6,590,622 to Nakanishi et al. (hereinafter referred to as Nakanishi).

Regarding claims 1-3 and 6-8, Nakanishi discloses a conductive article of manufacture having its conductive component outermost comprising a polymeric substrate, a first layer of material of high refractive index ( $\text{TiO}_2$ ) deposited on the substrate, a first layer of material of low refractive index ( $\text{SiO}_2$ ) deposited on said first layer of material of high refractive index, a second layer of material of high refractive index ( $\text{TiO}_2$ ) deposited on said first layer of material of low refractive index, a second layer of material of low refractive index ( $\text{SiO}_2$ ) deposited on said second layer of material of high refractive index, and a layer of conductive material (ITO) overlying said second layer of material of low refractive index, said conductive layer being outermost for direct electrical contact, said material of high refractive index having an index of refraction equal to or greater than the index of refraction of said substrate, and said material of low refractive index having an index of refraction less than the index of refraction of said material of high refractive index, said layers of materials of high and low refractive index being effective to substantially optically match the refractive indices of said layer of conductive material and said substrate and to minimize reflection of the article over the visible light spectrum (see entire document including column 3, lines 9-32).

Regarding claim 8, Nakanishi discloses that the conductive article is adapted to be used with its conductive layer exposed to air (see Figures).

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakanishi (as applied to claims 1-3 and 6-8 above).

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Nakanishi fails to disclose the specific thickness of the layers, but the examiner takes Official Notice that it is understood by one of ordinary skill in the art that the layer thicknesses of an antireflection coating determine properties such as transmittance, emissivity, and color, and the thickness of the conductive layer determines the surface resistivity. It would have been obvious to one having ordinary skill in the art at the time the invention was made to vary the thickness of the layers of the antireflection coating to match the currently claimed thicknesses, because it is understood by one of ordinary skill in the art that the optical performance and surface resistivity of the article depend on the layer thicknesses, and because it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art.

Considering the substantially identical article taught by Nakanishi, compared to the currently claimed article, it appears that the article of Nakanishi possesses the currently claimed reflectance.

The Patent and Trademark Office can require applicants to prove that prior art products do not necessarily or inherently possess characteristics of claimed products where claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes; burden of proof is on applicants where rejection based on inherency under 35 U.S.C. § 102 or on prima facie obviousness under 35 U.S.C. § 103, jointly or alternatively, and Patent and Trademark Office's inability to manufacture products or to obtain and compare prior art products evidences fairness of this rejection, *In re Best, Bolton, and Shaw*, 195 USPQ 431 (CCPA 1977).

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7. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakanishi as applied to claims 1-3 and 6-8 above, and further in view of USPN 5,661,596 to Biro et al. (hereinafter referred to as Biro).

Nakanishi fails to disclose the thicknesses of the high and low refractive index layers, but Biro discloses that it is known construct a high/low/high/low antireflective coating with the currently claimed thicknesses (see entire document including column 1, lines 46-64 and column 4, lines 1-49). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the high and low refractive index layers from the currently claimed thicknesses, as taught by Biro, because the resulting article would have a desirably high antireflection effect.

Nakanishi fails to disclose the specific thickness of the conductive layer, but the examiner takes Official Notice that it is understood by one of ordinary skill in the art that the layer thickness of the conductive layer determines the surface resistivity. It would have been obvious to one having ordinary skill in the art at the time the invention was made to vary the thickness of the conductive layer, because it is understood by one of ordinary skill in the art that the surface resistivity of the article depends on the layer thickness, and because it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art.

Considering the substantially identical article taught by Nakanishi, compared to the currently claimed article, it appears that the article of Nakanishi possesses the currently claimed reflectance.

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***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T Piziali whose telephone number is (703) 306-0145.

The examiner can normally be reached on Monday-Friday (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Jones can be reached on (703) 308-3822. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

atp



ANDREW T. PIZIALI  
PATENT EXAMINER



DEBORAH JONES  
SUPERVISORY PATENT EXAMINER